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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,209	11/01/2001	Charles C. Huse	NLM.P005	5816
30554	7590	04/28/2005		
SHEMWELL GREGORY & COURTNEY LLP 4880 STEVENS CREEK BOULEVARD SUITE 201 SAN JOSE, CA 95129			EXAMINER TRIMMINGS, JOHN P	
			ART UNIT 2133	PAPER NUMBER

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/004,209	HUSE, CHARLES C.	
	<b>Examiner</b>	<b>Art Unit</b>	
	John P Trimmings	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 October 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 and 28-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10, 19-26 and 28 is/are allowed.
- 6) ☒ Claim(s) 11, 15, 18, 29, 32 and 42 is/are rejected.
- 7) ☒ Claim(s) 12-14, 16, 17, 30, 31, 33-42 is/are objected to.
- 8) ☒ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This Office Action is in response to the applicant's Amendment and Declaration under CFR 1.131 dated 10/22/2004.

Claim 27 was cancelled by the applicant.

Claims 35-38 were amended by the applicant.

Claims 1-26 and 28-43 are pending.

### **SPECIAL NOTE**

In a telephone Interview on 3/1/2005, the applicant representative and the examiner discussed an earlier Final Action written by the examiner dated 2/7/2005. In the interview (which is entered into the record on 3/9/2005), the applicant and examiner agreed that the examiner would withdraw the said Final Action, and that the applicant need not respond to said Final Action.

The examiner hereby withdraws the Final Action dated 2/7/2004.

The following is an Office Action in replacement of the said Final Action of 2/7/2005.

### ***Response to Amendment***

1. In view of the applicant's changes to FIG.11 of the Drawings, and to the Specification, the examiner withdraws the objections to said Drawings and Specification, and approves said changes.
2. In view of the Declaration of Prior Invention filed on 10/22/2004, the examiner

withdraws the rejections of Claims 1-26 and 28-43. However, upon further consideration, a new ground(s) of rejection is made in view of Baumann (see below).

***Claim Rejections - 35 USC § 102***

3. Claims 11, 15, 18, 29, 32 and 43 rejected under 35 U.S.C. 102(e) as being anticipated by Baumann, U.S. Patent No. 6732227.

As per Claim 11:

Bumann teaches a content addressable memory (CAM) device (FIG.5), comprising: a counter (FIG.5 503); and CAM array having a plurality of rows of CAM cells (FIG.5 508) coupled to the counter (through Address Reg. 504) to receive a counter value as a search key for the CAM array (column 6 lines 8-19).

As per Claim 15:

Bumann teaches a content addressable memory (CAM) device (FIG.5), comprising: a counter (FIG.5 503); a CAM array having a plurality of rows of CAM cells (FIG.5 508) coupled to the counter to receive a counter value (through Address Reg. 504) for storage in at least one of the rows of the CAM cells (column 6 lines 8-19); and address logic coupled to the counter and the CAM array to select at least one of the rows of CAM cells in the CAM array in response to the counter value (FIG.5 504, 508).

As per Claim 18:

Bumann teaches a content addressable memory (CAM) device (FIG.5), comprising: a CAM array that includes a plurality of rows of CAM cells (FIG.5 508) each coupled to a match line (FIG.8 MA-MD); means for determining an index that indicates a

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location in the CAM array of one of the rows of CAM cells (FIG.5 512); means for generating an address of one of the rows of CAM cells in the CAM array (FIG.5 503 and ADV#); and means for determining that the address matches the index (FIG.8 801, 802).

As per Claim 32:

Bumann teaches a method for operating a content addressable memory (CAM) device (FIG.5), comprising: comparing a search key with data stored in a plurality of rows of CAM cells (column 6 lines 64-67 and column 7 lines 1-4); generating an index of a location in the plurality of rows of CAM cells that indicates a match with the search key (FIG.5 INDEX(18:0); and comparing the index with a first counter value from a counter (FIG.5 BURST ADDR through 504 ADDR REG through DECODER 506).

As per Claims 29 and 43:

Bumann teaches a method and computer-readable medium having stored thereon sequence of instructions, the sequences of instructions including instructions which, when executed by a processor, causes the processor to perform the step of: systematically identifying locations in a CAM array of the CAM device that store data that match search keys (column 6 lines 64-67 and column 7 lines 1-4); and synchronizing a counter within the CAM device (FIG.5 503 ADV#) with the identifying such that the identifications of the locations match counter values of the counter when the CAM device is operating properly (FIG.8 match results and column 7 lines 26-63).

***Allowable Subject Matter***

4. Claims 1-10, 19-26 and 28 are allowed.

As per Claims 1, 19 and 25:

The following is an examiner's statement of reasons for allowance: The reference art of Baumann teaches a content addressable memory including CAM cells, match lines, priority encoder, and a counter. However, the prior art of record taken alone, or in combination failed to teach, anticipate, suggest, or render obvious the claimed invention of the application. Specifically, as per example in Claim 1, the prior arts failed to teach, anticipate, suggest, or render obvious the limitation introduced into these claims, namely: compare logic coupled to the counter and the priority encoder to compare the index and counter values. Consequently, Claims 2-10, 20-26 and 26 and 28 are dependent directly or indirectly upon Claims 1, 19 and 25, and are therefore also allowed. In total, Claims 1-10, 19-26 and 28 are allowed.

5. Claims 12-14, 16, 17, 30, 31 and 33-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P Trimmings whose telephone number is (571) 272-3830. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

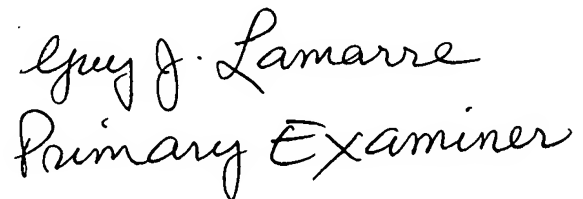
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John P Trimmings  
Examiner  
Art Unit 2133

jpt



Primary Examiner



*Approved 3/21/05 gpf*

**AMENDMENTS TO THE DRAWING**

Please amend Figure 11 by changing the arrow labeled "DBUS" from a left-hand arrow to a right-hand arrow. A Marked-Up Drawing Sheet illustrating the requested amendment to Figure 11 in red ink is enclosed herewith. A Replacement Drawing Sheet incorporating the requested amendment to Figure 11 is also enclosed.



Replacement Drawing (Sheet 1 of 1)

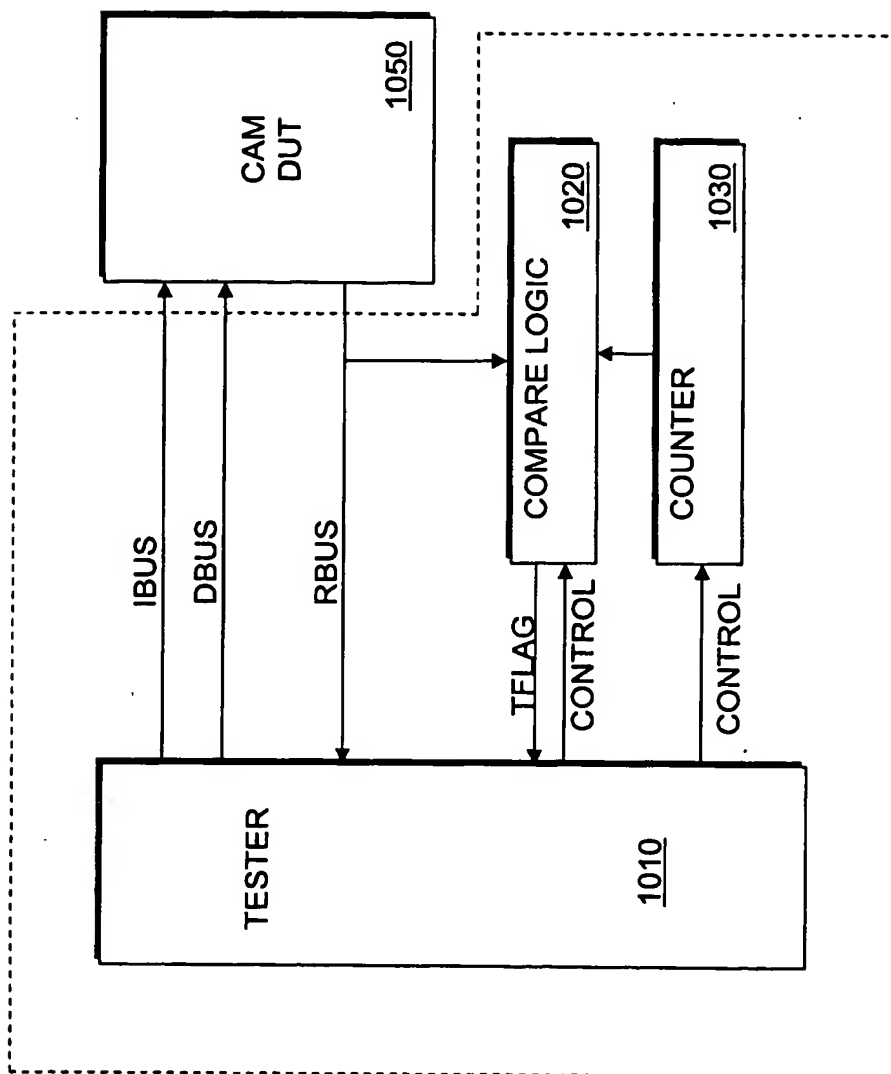


FIG. 11